

## CLAIMS

What is claimed is:

1. A method for configuring power consumption and performance of a storage device, comprising:
  - providing an electronic storage device with an operational profile comprising at least two different settings to regulate power consumption and performance of the storage device;
  - displaying via a graphical illustration the operational profile and each of the two different settings for power consumption and performance of the storage device; and
  - selecting one of the two different settings to configure power consumption and performance of the storage device.
2. The method of claim 1 further comprising selecting a first one of the two settings to increase performance of the storage device and to increase power consumption of the electronic device.
3. The method of claim 1 further comprising selecting a second one of the two settings to decrease performance of the storage device and to decrease power consumption of the electronic device.
4. The method of claim 1 wherein displaying via a graphical illustration comprises showing a tradeoff between performance and power consumption for the storage device.
5. The method of claim 4 wherein displaying via a graphical illustration comprises presenting bar charts to show the tradeoff between performance and power consumption.
6. The method of claim 1 further comprising:
  - providing the storage device with the operational profile comprising three different settings to regulate power consumption and performance

of the storage device, wherein a first setting has a low power consumption and a low performance, a second setting has a medium power consumption and a medium performance, and a third setting has a high power consumption and a high performance; and

displaying via the graphical illustration the operational profile and each of the three different settings for power consumption and performance of the storage device.

7. The method of claim 1 wherein selecting one of the two settings comprises enabling a user to enter an input to the storage device to configure the storage device to one of the two settings and alter power consumption and performance of the storage device.

8. The method of claim 7 further comprising enabling the user to enter the input directly via a user interface and to save the operational profile to one of the two settings.

9. A system for configuring power and performance of a storage device, comprising:

a storage device to be configured; and

a budget configuration tool coupled to the storage device wherein the budget configuration tool configures the power and performance of the storage device by setting device parameters associated with the storage device based on desired operation as selected by a user.

10. The system of claim 9 wherein the user selects the desired operation in terms of a power and performance tradeoff.

11. The system of claim 9 further comprising a configuration file that can be accessed by the budget configuration tool, wherein the configuration file comprises information regarding device parameters associated with the storage

device and an effect of setting the device parameters on the power and performance of the storage device.

12. The system of claim 9 further comprising at least one operation profile that can be accessed by the budget configuration tool, each operation profile corresponding to an operating mode of the storage device.

13. The system of claim 9 further comprising a user interface where the user can select the desired operation of the system for use by the budget configuration tool.

14. The system of claim 13 wherein a plurality of operation profiles is presented via the user interface for the user to select the desired operation.

15. The system of claim 14 wherein the plurality of operation profiles is presented in terms of power and performance tradeoff.

16. The system of claim 13 wherein the user interface presents a graphic illustration of the power and performance tradeoff of the operation selected by the user.

17. The system of claim 16 wherein the user can select the desired operation via the graphic illustration.

18. A system for configuring power and performance of a storage device, comprising:

- means for assisting a user in selecting a desired operation for a storage device based on the power and performance of the storage device;
- and
- means for configuring the storage device for operation as desired by the user.

19. The system of claim 18 further comprising means for a user to select a desired operating mode for a storage device from a plurality of operating modes for the storage device, wherein a selected operating mode corresponds to a desired operation of a storage device based on power consumption and performance of the storage device.

20. The system of claim 18 further comprising means for accessing information regarding device parameters associated with the storage device and how to set the device parameters for the desired operation of the storage device.